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Subject: Fertilizer Supplies and Distribution for 1943-44

Field Distribution: War Board Members, AAA Committeemen, Extension Editors and Agronomists, BAE Analysts, FDA Marketing Reports Chiefs, SCS, FSA, FCA Regional Information Chiefs

Suggested Use: Background information

Fertilizer outlook for 1943-44

In terms of the supply, compared with that of former years, farmers have a much improved fertilizer situation ahead of them. For the 1943-44 crop season the supply of fertilizer materials available for food production is larger than any previous year, except for potash and organic nitrogen.

Nitrogen, phosphate and potash are the three principal materials concerned in chemical fertilizer production. We will have available about 625,000 tons of chemical nitrogen, compared to 460,000 tons during the 1942-43 season, and about 7,000,000 tons of superphosphate -- as against 5,800,000 tons during the previous season. The supply of potash available for agriculture will be about 560,000 tons, compared to 590,000 tons in 1942-43. However, the supply of potash will be 20 percent more than the 461,000 tons actually used by farmers in 1941, the year before Pearl Harbor.

It is expected that in 1944, farmers will have enough fertilizer to meet all essential crops needs. The War Food Administration can offer this assurance, however, only if farmers apply now for fertilizer they need both this fall and next spring, and accept delivery of it during fall and winter months. This is essential. If fertilizer mixers are to meet farmers' needs, it is extremely important to keep goods moving out from fertilizer plants. Labor, transportation, and storage difficulties require that every possible measure be taken to avoid peak loads.

Organic nitrogen supply

In contrast with the chemical nitrogen situation, the supply of natural organic nitrogen will be the smallest in years. Practically all edible organic waste materials have been directed for livestock feed. Imports of bone meal, tankage and fish scrap have been curtailed or halted. This naturally reduces the supply for fertilizer purposes, and it has been necessary to reduce the percentage of organics in mixed fertilizers. It is not expected that this will materially influence crop production, since more nitrogen can be supplied by using ammonium nitrate and other materials.

Normally, a considerable tonnage of cottonseed meal and other edible meals are used, particularly in tobacco fertilizers. Forty thousand tons of cottonseed meal are to be allocated for use in fertilizers in 1944. This will represent about 35 percent of the quantity used in 1941-42.

New nitrogen materials

To supplement the supply of nitrate of soda normally used to supply nitrogen for fertilizers, other materials are now being made available. Ammonium nitrate is one of the principal materials. Ammonium nitrate--important in making explosives--is one of these supplementary materials and is being made available in considerable quantities for agricultural uses.

Ammonium nitrate is a satisfactory and economical source of nitrogen for mixed fertilizers, and particularly as a straight material for top and side dressing. It is a good plant food, although it is too early to state whether it can be stored over long periods.

This material has been used in the past in some fertilizer mixtures, but is practically a new material when used alone. Its chief difficulties in the past have been that it caked in storage and attracted moisture. However, these difficulties have been largely worked out by special treatments involving manufacture of the material in the form of small pellets, first coated with wax and then with clay.

Ammonium nitrate contains from 32 to 34 percent nitrogen, about twice the nitrogen content of nitrate of soda. Because of its concentrated form, farmers should follow closely the recommendations of State agricultural authorities as to rate of application and method of handling to obtain best results.

Demand for fertilizer

It is anticipated that the demand for fertilizer will be considerably greater than last year, when it was in excess of the available supply, particularly in some areas where fertilizer has not been used to the maximum. The use of more fertilizer is recognized as a major method of increasing food production on the present acreage of crop land, without increasing labor and farm machinery requirements. The use of fertilizer is estimated to account for a minimum 20 to 25 percent total food production in 1944. Increased food production may be obtained by fertilizing a larger acreage of group B crops at usual rates per acre, and by fertilizing more acres of A crops at heavier rates per acre.

THE DISTRIBUTION PROGRAM

Chemical nitrogen and potash bearing materials are allocated to fertilizer manufacturers under War Production Board orders. Fertilizers are distributed to farmers by the fertilizer industry under War Food Administration direction, through provisions of Food Production Order No. 5 (Revised). This order directs the distribution of all fertilizer materials containing nitrogen, phosphoric acid and potash. The object of the fertilizer program is to distribute and use mixed fertilizer and fertilizer materials so that maximum food production can be obtained, and to insure an equitable supply among farmers.

Food Production Order No. 5, as revised: (1) Continues the approved grade program, providing for grades of fertilizer satisfactory for crop and soil needs of the principal fertilizer-using states and yet meeting the need for conservation. The list of approved grades has been worked out with the approval of state agronomists, State War Boards, and other agricultural authorities. Each state list is designed to make the best use of available materials, with a minimum quantity of filler to conserve labor in fertilizer plants, save on bagging materials, and to reduce transportation loads. Recently, a few new grades have been added to the original lists. These have been needed in some states to provide more equitable distribution of the potash supply in relation to nitrogen and phosphoric acid.

(2) Again gives priority on the delivery of fertilizer to a list of Group A crops. The A list now includes hybrid corn for seed production, peanuts, sugar beets for seed production, hemp, dry and snap beans, lima beans, cabbage, carrots, onions, green peas, dry edible peas, potatoes (including sweet potatoes), sweet corn for processing, tomatoes, and vegetable seeds. Other crops are classified in a Group B list.

In the revised order, special measures are provided whereby some fertilizers which are new materials, or are available in larger than usual quantities, may be directed into specific areas to encourage production of B crops--especially those that respond readily to application of fertilizer but which customarily have not been fertilized.

(3) Makes the fertilizer available according to a farmer's crop requirements. On A crops this means that a farmer may use fertilizer at any rate of application, but not in excess of recommendations of state agricultural experiment stations. Requirement provisions have been opened up for growers of B crops by elimination of the provision which required growers of such crops to have a history on the use of fertilizer to be eligible for it. This change will permit the use of fertilizer by farmers who have not previously used fertilizers on B crops. The application rate on B crops will be the usual rate for the area, but not above the rate recommended by the state experiment station.

(4) Continues the provision under which farmers are required to make application to their local dealers for the purchase of fertilizer according to their crop requirements. In addition to application for fertilizer they will use this fall, farmers under this plan may also apply for fertilizer they will need for use next spring. Manufacturers, dealers and agents are required to make deliveries of fertilizer for A crops before such deliveries are made for B crops. However, in order to insure preference for A crops when fertilizer is needed for both A and B crops at the same time, applications for fertilizer for A crops must be made at least 30 days in advance of the time required.

The program also provides for special grades of fertilizer suitable for Victory Gardens by areas. Only one grade for the entire country was available last year. The grades which will be available next year are: 6-10-4 for Pacific coast states, 4-12-4 for Midwest states, and 5-10-5 for Atlantic coast and Southern states. Victory Gardeners will also be able to purchase small quantities of nitrate of soda, and ammonium nitrate to supplement the mixed fertilizer, where such is needed.

POINTS TO STRESS IN INFORMATION MATERIALS ON THE FERTILIZER DISTRIBUTION PROGRAM

1. APPLY FOR FERTILIZER NOW: One of the most important points to stress in press, radio and other information materials prepared locally is that farmers should apply now for fertilizer they need, both for this fall and next spring, and accept delivery as soon as possible. The percentage of increase in supply over 1942-43 (between 10 and 12 percent) should not be stressed, but rather that farmers can expect to have an adequate supply of fertilizer in 1943-44 only by applying for it as soon as possible and accepting early delivery.

Normally, the fertilizer business is heaviest in the spring when farmers traditionally buy fertilizer for immediate application. The tight labor, storage and transportation system as it affects the fertilizer industry will not permit this practice during the coming season. It will be to the farmer's own advantage to apply for fertilizer now. The important thing now is to keep fertilizer moving, so that manufacturers will be able to receive supplies, mix the fertilizer, and ship it so that it can be delivered in time to meet farmers' requirements. All possible measures need to be taken to avoid peak labor loads in fertilizer plants, to prevent overloading of the transportation system, and to relieve the storage situation.

Farmers apply to their local fertilizer dealers or agents for fertilizer. The dealer will have a simplified application form for the farmer to use. The application will show the name of the crops, acreage to be grown, grade of mixed fertilizer or material distributed, rate of application per acre, and the total amount to be required. Use of the application will assure the farmer of the quantity of fertilizer needed for his 1944 crop program, and will prevent building up stocks of unused supplies on farms which will not be used this season.

2. TIPS ON STORAGE OF FERTILIZER: Along with the need to obtain fertilizer early, it will be necessary to give information on storing fertilizer on the farm. Farmers should have no difficulty in storing fertilizer if they follow a few simple rules: Fertilizer should be stored in a dry, floored, weather-proof building. If the available space has no floor, a raised platform can be built of materials on hand. Fertilizer should be stored in the sacks in which it came, and not piled more than 8 to 10 sacks deep.

3. USE HIGHER ANALYSIS FERTILIZER: Farmers can save themselves money and at the same time make a substantial contribution to the war effort by buying higher analysis fertilizer. WFA officials in charge of the fertilizer distribution program say that higher analysis fertilizer costs more per 100 pounds than those of lower plant food content, but that the cost per pound of plant food is lower. Four bags of 5-10-5, for example, will furnish 80 pounds of plant food (nitrogen, phosphoric acid, and potash) whereas it takes 5 bags of 4-8-4 to supply the same number of pounds.

Fertilizer prices vary by states and areas, but in North Carolina, for example, a ton of 5-10-5 in 100-pound bags costs approximately \$34.90, compared to about \$30.40 for a ton of 4-8-4. On the basis of plant food content, it would require 2,500 pounds of 4-8-4 to provide the same number of pounds of plant food contained in a ton of 5-10-5. Twenty-five hundred pounds of 4-8-4 costs about \$38; comparing this cost to that of a ton of 5-10-5 at \$34.90, the farmer has a saving of \$3.10 by purchasing the higher analysis grade. (NOTE: The above is an example on costs and grades for one state. Examples can be worked out with state agronomists for use in other states.)

In addition to the saving in cost, the farmer who uses higher analysis fertilizer will be helping to relieve the transportation, labor, packaging and storage problems in connection with manufacture and shipment of fertilizer. Use of higher analysis grades means fewer bags will have to be used and handled in shipment and in storage. The situation on materials for supplying bags requires that all measures be taken in the conservation of their use.

4. FERTILIZER GRADES AND RATES OF APPLICATION: Recommendations for rates of application and grades of fertilizer for use locally are made on the state basis, and consequently information materials must be prepared on a local basis. Such materials should stress the use of grades and rates of application which will add most to the war food program, for both Group A and Group B crops.

